

**AMENDMENTS TO THE CLAIMS**

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. - 10. (Cancelled)

11. (Previously Presented) A computer-implemented method comprising:

receiving by a computer a set of input financial data;

storing by a computer one or more historical values, each historical value representing a previous set of input financial data;

performing by a computer a mathematical calculation using the information content of the input financial data and the information content of the one or more historical values,

assessing by the computer the credibility that changes to the set of input financial data are the result of one or more errors; and

presenting by the computer a confidence level that a change between the information content of the input financial data and the information content of the one or more historical values is caused by an error.

12. (Previously Presented) The method of claim 11, wherein the input financial data includes data feeds from one or more data processing systems.

13. (Previously Presented) The method of claim 11, wherein the input financial data includes data calculated by a financial risk management system.

14. (Previously Presented) A system for detecting abnormalities in input financial data to a financial risk management system, the system comprising:

a data processing server that receives a set of input financial data;

a computer storage device storing one or more historical values, each historical value representing a previous set of input financial data;

one or more central processing units coupled to the computer storage device, the one or more central processing units mathematically calculating the information content of the one or more historical values and the information content of the input financial data, and mathematically calculating, based on the likelihood function, an assessment of the credibility that changes between the information content of the one or more historical values and the information content of the set of input financial data are the result of one or more errors; and

a graphical user interface displaying a result based on the calculations that changes to the set of input financial data are the result of one or more errors.

15. (Previously Presented) The system of claim 14, wherein displaying a result includes displaying an icon indicative of calculated odds that changes to the set of input financial data are the result of one or more errors.

16. (Cancelled)

17. (Previously Presented) The method of claim 11, wherein calculating the information content of the input financial data and the one or more historical values is performed by calculating the Shannon entropy of the input financial data.

18. (Previously Presented) The method of claim 11, wherein the mathematical calculation is performed using non-parametric resampling statistics.

19. (Previously Presented) The method of claim 11, wherein the mathematical calculation is performed using Bayesian statistics.

20. (Previously Presented) The method of claim 11, wherein the mathematical calculation is performed using parametric statistics.

21. - 28. (Cancelled)

29. (Currently Amended) The method according to claim 11, wherein the confidence level comprises a logarithmic scale of odds ratios.

30. (Previously Presented) A computer-implemented method for identifying possible errors in financial data, the method comprising the steps of:

inputting financial data;

converting by a computer the financial data to a first information content;

comparing by the computer the first information content to a second information content, wherein the second information content represents historical values of the financial data;

analyzing by a computer a change between the first information content and the second information content;

identifying by a computer the odds of a possible error based on the change at a predetermined statistical confidence level; and

alerting a user that the change between the first information content of the inputted financial data and the second information content of the historical values may be a possible error based on the identified odds.

31. (Previously Presented) The method according to claim 30, further comprising the step of determining whether a variation in the inputted financial data is greater than a current mark to market or a maximum likely increase in value.

32. (Previously Presented) The method according to claim 30, wherein the statistical confidence level is based upon a standard deviation interval.

33. (Previously Presented) The method according to claim 30, wherein the step of alerting the user further comprises displaying an alert on a graphical user interface.

34. (Previously Presented) The method according to claim 30, further comprising the step of classifying the difference between the first information content and the second information content using a plurality of categories that correlate to odds that the difference is an error in the inputted financial data.

35. (New) A method for detecting abnormalities in input data to a financial risk management system, the method comprising:

- (a) receiving by a computer a set of input data to a financial risk management system;
  - (b) receiving by the computer one or more historical values, each historical value representing a previous set of input data;
  - (c) calculating by the computer the likelihood that changes to the set of input data are the result of one or more errors; and
  - (d) preparing a report by the computer;
- wherein calculating the likelihood that changes to the set of input data are the result of one or more errors comprises:
- (i) determining information content of the input data;
  - (ii) performing a statistical analysis of the information content relative to the one or more historical values; and
  - (iii) determining the a likelihood that changes to the information content of the input data is the result of one or more errors.

36. (New) The method of claim 35, wherein the input data includes data calculated by a financial risk management system.

37. (New) The method of claim 35, further comprising: displaying a result based on the calculated likelihood that changes to the set of input data are the result of one or more errors.

38. (New) The method of claim 37, wherein displaying the result includes displaying an icon indicative of the degree of likelihood that changes to the set of input data are the result of one or more errors.

39. (New) The method of claim 35, wherein determining the information content of the input data is performed by calculating the Shannon entropy of the input data.

40. (New) The method of claim 35, wherein the statistical analysis is performed using Bayesian statistics, parametric statistics, or non-parametric resampling statistics.

41. (New) A method to identify potential errors in data input into a financial risk assessment process, the method comprising:

- determining by a computer a first value of a historical financial risk assessment data set, the first value being a function of at least an entropy of the set;
- determining by the computer the first value of a current financial risk assessment data set;
- determining a likelihood that the current data set is from the population of the historical data set based at least in part on the first values of the current and historical sets;
- preparing a report by the computer; and
- wherein determining the likelihood comprises:
  - determining the information content of the current financial risk assessment data;
  - performing a statistical analysis of the determined information content relative to the first value; and
  - determining the likelihood that changes to the information content of the current data set is not the result of one or more errors.

42. (New) A method for determining a confidence level for a set of input data to a financial risk management system, the method comprising:

- receiving a historical data set having a first value;
- receiving a set of input data having a second value; and
- mathematically determining, by a computer, a confidence level for the set of input data based upon a comparison between the first and second values, wherein the confidence level is determined using a mathematical calculation of the likelihood that changes between the first and second values are the result of one or more errors.